

Unused HSD HST810-M two-axis head with ES510 42 kW HSK-A63 electrospindle

Factory-crated, never installed. Melbourne, Australia. Offered with the oil-air lubrication unit and the spindle line reactor supplied with it.

Identification

HSD description	TWO AXIS HEAD [HST810-M-ES510 NC A63 CC 42kW 24Krpm RM+A 256i1Vpp G.OTT]
HSD article code	H8099H0048 (installation drawing H8099H0048 rev P1, 18/07/2022, RDF 2905508)
Manufacturer	HSD S.p.A., Pesaro (PU), Italy. Made in Italy.
Unit identity	HSD works order OdL 2013060, production number 2023001552, per the HSD label on the sealed unit bag (photographed 24 September 2026). The electrospindle nameplate serial is inside the sealed bag and will be confirmed to the buyer against the HSD works order.
Build and delivery	Ordered September 2022 (HSD proforma invoice 29969532 dated 20-09-2022, HSD order confirmation OC 22610022). Built 2023 and delivered to C.N.C. Design Pty Ltd, Melbourne, in August 2023 under HSD shipment reference 617037.
Mass	550 kg complete head (HSD drawing title block); four M16 eyebolt lifting points under the covers

Two-axis head HST810-M (HSD drawing, Table 3)

Parameter	C-axis	A-axis
Rotation / overtravel	±360° / ±365°, no mechanical stop	±110° / ±115°, no mechanical stop
Drive	HSD SPM direct-drive torque motor SP.290.180.441	HSD SPM direct-drive torque motor SP.360.050.661
Rated torque S1 / stall / max	688 Nm / 539 Nm / 1,250 Nm (725 Nm S1 on motor sheet)	391 Nm / 311 Nm / 707 Nm (390 Nm S1 on motor sheet)
Rated current S1 / max	17 A / 29 A, 600 V DC bus, star	12 A / 18 A, 600 V DC bus, star
Max speed	180°/s (60 rpm)	180°/s (60 rpm)
Motor inertia	9.8 kgm ²	2.8 kgm ²
Position encoder	Heidenhain RCN 8380, absolute, EnDat 2.2, 29 bit	Heidenhain RCN 8380, absolute, EnDat 2.2, 29 bit
Measuring system accuracy	2 arcsec	2 arcsec
Holding brake	Hydraulic, normally open, 4,000 Nm at 40 bar	Hydraulic, normally open, 2,000 Nm at 40 bar
Max continuous dissipation	5,550 W	2,990 W

Drive compatibility: HSD supplies full SINAMICS (P-parameter) and SIMODRIVE (MD) parameter sets for both axis motors on the drawing. EnDat 2.2 feedback is native to Siemens drives; other controls need EnDat-capable drives or an interface.

Electrospindle ES510, liquid cooled (HSD drawing, Tables 3 and 7)

Tool interface	HSK-A63, hydraulic automatic tool change, analog tool clamping control
Motor	Synchronous 3-phase, 4 poles, insulation class F, IP54, efficiency 0.87, cos phi 0.9
Power	42 kW S1 / 55 kW S6-40%, constant power from 6,000 to 24,000 rpm
Torque	66.8 Nm S1 / 87.5 Nm S6 to 6,000 rpm; 22 / 29 Nm at 18,000 rpm; 16.7 / 21.8 Nm at 24,000 rpm
Electrical	240 V at 200 Hz (6,000 rpm), 482 V at 600 Hz (18,000 rpm), 566 V at 800 Hz (24,000 rpm); 129 A S1 / 166 A S6
Speed / lubrication	24,000 rpm version, air-oil bearing lubrication (oil-air unit CC34250005 supplied; 18,000 rpm grease variant superseded at rev P1)
Spindle encoder	Lenord + Bauer GEL2443KN1G3 sensor, ring ZA N 3 0256 012.0, 256 counts/rev, 1 Vpp incremental, 1 reference
Cooling / coolant	Water-glycol jacket cooling; through-spindle coolant via supplied rotary joint (50 bar max); external coolant 30 bar max
Mass	65 kg spindle + 50 kg housing (included in the 550 kg head mass)
HSD documents	Spindle handbook H5801H0087, spindle data sheet H6161H1718

Mounting interface and envelope (HSD drawing sheet 1)

Machine fitting	Ø335 g7 (-0.018 / -0.075) spigot, two Ø16 m6 dowels at 180°, flange bolt pattern per drawing
Overall height	1,373 mm from mounting face to spindle nose (drawing); 1,421 mm with tool release detail
Collision envelope	Ø545 A-axis swing, Ø655 maximum swept diameter, fork width 440 mm, body 268 x 220 mm

Services required at the machine (HSD drawing, Table 2)

Service	Fluid	Pressure / flow	Port
A and C axis clamping (brakes normally open)	Hydraulic oil	40 to 45 bar, 8.8 cm ³ per axis; safety accumulator circuit required (drawing note)	G 1/4"
Tool release	Hydraulic oil	40 to 45 bar, 73 cm ³	G 1/4"
Spindle cooling in / out	Water + glycol	9 to 12 L/min, 5 bar max	G 1/4"
A-axis and C-axis cooling	Water + glycol	5 bar	G 1/4"
Spindle and C-axis pressurisation	Air	1.5 to 2 bar, 8,000 NI/h (spindle)	G 1/8"
Tool clamping / tool external lubrication	Air	10 bar max	G 1/8"
Cone cleaning	Air	4 to 6 bar	G 1/4"
Rotary joint coolant inlet (through-spindle)	Coolant, no dry air	50 bar max	G 1/4"
Tool external coolant	Water / coolant	30 bar max	G 3/8"
Bearing air-oil lubrication (front, rear, suction)	Air-oil	Per spindle manual, from supplied unit	Per manual

Electrical: panel-mount connectors (Interconnectron / Intercontec) for spindle power, spindle encoder and sensors, A and C motor power and encoders, per Table 1 of the drawing. Spindle line reactor CCA4050012 (0.4 mH, 130 A) supplied.

What is included

HSD code	Description	Qty	Packing
H8099H0048	Two-axis head HST810-M with ES510 electrospindle, rotary joint supplied; sealed in HSD VCI bag on its steel transport frame	1	HSD crate 7/9
CC34250005	Oil-air lubrication unit, 24 V DC	1	HSD crate 8/9
CCA4050012	3-phase inductance 0.4 mH, 130 A (spindle line reactor)	1	HSD crate 9/9
	HSD installation drawing H8099H0048 (2 sheets), C.N.C. Design delivery notes for crates 7/9, 8/9 and 9/9, HSD proforma and order references. HSD handbook H5801H0087 and data sheet H6161H1718 are HSD documents, obtainable from HSD for the unit.		Documents

Provenance

Supply chain	Ordered new from HSD S.p.A. through HSD's Australian partner at the time, C.N.C. Design Pty Ltd (customer PO OT5778V), HSD order confirmation OC 22610022, proforma invoice 29969532 dated 20-09-2022. Shipped by HSD under reference 617037 (crates 7/9, 8/9, 9/9) and received by C.N.C. Design, Melbourne, in August 2023; each crate carries its delivery note.
Identity check	24 September 2026: crate 7/9 opened for identification. The HSD label on the sealed unit bag reads H8099H0048, OdL 2013060, 2023001552, Made in Italy, matching the proforma and delivery note (photographs on page 3).
Ownership	Fleischmann's Machines Pty Ltd, ABN 45 644 349 762, Melbourne. Purchase documents (prices redacted) available to a qualified buyer.
Manufacturer position (Sept 2026)	HSD Italy has acknowledged the order references. As the unit is outside HSD's warranty period, HSD will not certify or resell it through its network. It is therefore offered as an unused private-sale item without manufacturer warranty.
Drawing status	The HSD drawing carries status 'Prototype': revision P0 is HSD's 'first release in prototype status' for this configuration-specific code, updated at P1 for the 24,000 rpm spindle description. The hardware is HSD's standard HST810-M head and ES510 electrospindle in this configuration.

Condition

Status	Never installed, never powered. Received August 2023 and held in the original HSD factory crates on the original pallets since.
Storage	Indoors, on the original pallets, in a locked unit at a commercial storage facility in Melbourne's eastern suburbs since receipt in August 2023. Exact location given to buyers for inspection.
Packaging	Crate 7/9 lid unscrewed for identification on 24 September 2026 and refitted; the head was not touched and remains in HSD's sealed blue VCI bag, bolted to its steel transport frame. The lubrication unit and line reactor remain in their original HSD packing in crates 8/9 and 9/9.
Reason for sale	Surplus following a design change to a larger head class on the owner's own machine project.
Pre-shipment test	Available at buyer's cost at an Australian spindle service workshop: spindle run-up, vibration and temperature, tool clamp function, axis brake and encoder checks per HSD Table 5 where feasible off the machine. Written report and video; buyer or agent welcome to attend.

Photographs (identity check and storage, September 2026; receipt photo August 2023)



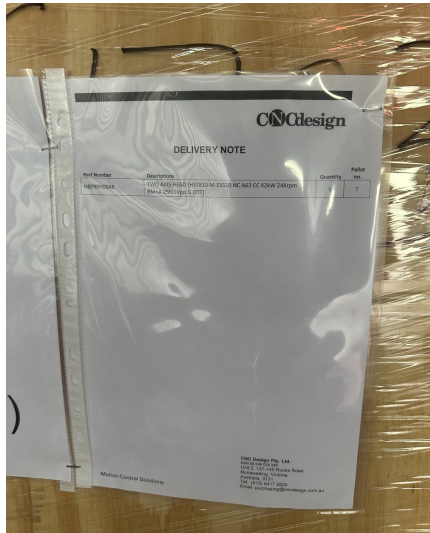
Crate 7/9 (head) in storage, C.N.C. Design delivery note and shipment reference 617037 on the side.



Inside crate 7/9: head sealed in HSD's blue VCI bag, bolted to the steel transport frame.



HSD label on the sealed bag: H8099H0048, OdL 2013060, 2023001552, Made in Italy.



Delivery note, crate 7/9: H8099H0048 two-axis head, quantity 1.



The three crates of shipment 617037 on receipt: 8/9 and 9/9 in front of 7/9.



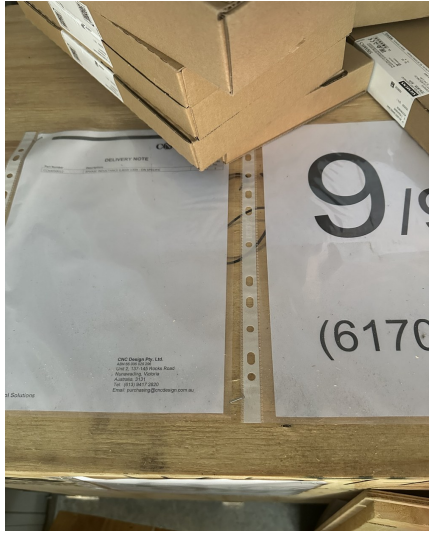
Crate 9/9 (HSD Mechatronics, Made in Italy) in storage; 8/9 to the right.



Crate 8/9 with its delivery note (CC34250005 oil-air lubrication unit).



Crate 7/9, second view: bagged head, transport frame and packed accessories.



Delivery note, crate 9/9: CCA4050012 3-phase inductance 0.4 mH 130 A.

Further photographs, including the rating plates of the lubrication unit and line reactor, on request.

Commercial terms

Price	As listed, or on application. Net price for the complete package listed on page 2, FCA Melbourne, Australia (Incoterms 2020), in the original HSD crates.
Excluded	Freight, transit insurance, import duties and taxes at destination, commissioning.
Payment	100% cleared funds before release, by bank transfer or Escrow.com. No payment to any third party.
Taxes	Export sale: GST-free when exported. Sale within Australia: plus 10% GST.
Export control	The seller will lodge the Australian export permit assessment (Defence and Strategic Goods List, Defence Export Controls) on contract. Delivery to an overseas buyer is subject to permit where required; the buyer supplies end-user and end-use details.
Inspection	By appointment in Melbourne. Pre-shipment workshop test as described on page 2.
Documentation supplied	HSD installation drawing H8099H0048 (HSD's reproduction legend applies; supplied to the buyer for installation use), delivery notes, purchase references, test report if commissioned.
Validity	Subject to prior sale.

Seller

Company	Fleischmann's Machines Pty Ltd, ABN 45 644 349 762, Melbourne, Victoria, Australia
Contact	Chris Fleischmann, Director. chris@fleischmannsmachines.com , or via the marketplace enquiry form.

All technical values are transcribed from HSD's installation drawing H8099H0048 rev P1, proforma 29969532 and the HSD unit label for this specific unit and are given for identification and integration planning. HSD documentation prevails in case of discrepancy. No performance warranty is given by the seller.